

## WEST Search History

DATE: Wednesday, July 09, 2003

### Set Name Query

side by side

### Hit Count Set Name

result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

L6	L4 and isostatic	1	L6
L5	L4 and isostatic pressure	1	L5
L4	L3 and pressure	477	L4
L3	L2 and lys\$5	1953	L3
L2	L1 and cell	3076	L2

*DB=USPT; PLUR=YES; OP=ADJ*

L1	((435/1.3  435/7.2  435/7.21  435/7.22  435/7.31  435/7.32 )!.CCLS. )	3239	L1
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END OF SEARCH HISTORY

(FILE 'HOME' ENTERED AT 11:07:39 ON 09 JUL 2003)

FILE 'AGRICOLA, ALUMINIUM, ANABSTR, APOLLIT, AQUIRE, BABS, BIOCOMMERCE,  
BIOTECHNO, CABA, CAOLD, CAPLUS, CBNB, CEABA-VTB, CEN, CERAB, CIN,  
COMPENDEX, CONFSCI, COPPERLIT, CORROSION, ENCOMPLIT2, FEDRIP, GENBANK,  
INSPEC, INSPHYS, INVESTEXT, IPA, JICST-EPLUS, ...' ENTERED AT 11:08:48 ON  
09 JUL 2003

L1 330324 S CELL AND LYS?  
L2 35434 S L1 AND PRESSURE  
L3 29586 S L2 AND (ELECTROPHORESIS OR ELECTROSMOSIS OR ABSORPTION OR FI  
L4 82 S L3 AND PRESSURE CHAMBER  
L5 3 S L4 AND ISOSTATIC

L5 ANSWER 1 OF 3 USPATFULL

ACCESSION NUMBER: 2002:27602 USPATFULL  
TITLE: **Pressure**-enhanced extraction and purification  
INVENTOR(S): Laugharn, James A., JR., Winchester, MA, UNITED STATES  
Hess, Robert A., Cambridge, MA, UNITED STATES  
Tao, Feng, Boston, MA, UNITED STATES  
PATENT ASSIGNEE(S): BBI BioSeq, Inc., a Massachusetts corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002016450	A1	20020207
APPLICATION INFO.:	US 2001-898404	A1	20010703 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-16062, filed on 30 Jan 1998, GRANTED, Pat. No. US 6274726 Continuation-in-part of Ser. No. US 1997-962280, filed on 31 Oct 1997, GRANTED, Pat. No. US 6111096		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	CHARLES J. BOUDREAU, Fish & Richardson P.C., Suite 2800, 45 Rockefeller Plaza, New York, NY, 10111		
NUMBER OF CLAIMS:	84		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Page(s)		
LINE COUNT:	2096		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB The invention is based on the discovery that hyperbaric, hydrostatic **pressure** reversibly alters the partitioning of biomolecules between certain adsorbed and solvated phases relative to partitioning at ambient **pressure**. The new methods and devices disclosed herein make use of this discovery for highly selective and efficient, low salt isolation and purification of nucleic acids from a broad range of sample types, including forensic samples, blood and other body fluids, and cultured **cells**.

In one embodiment, the invention features a **pressure** -modulation apparatus. The apparatus includes an electrode array system having at least two (i.e., two, three, four, or more) electrodes; and a conduit interconnecting the electrodes. The conduit contains an electrically conductive fluid in contact with a phase positioned in a **pressure chamber**. The phase can be, for example, a binding medium or stationary phase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 2 OF 3 USPATFULL

ACCESSION NUMBER: 2001:131438 USPATFULL  
TITLE: **Pressure**-enhanced extraction and purification  
INVENTOR(S): Laugharn, Jr., James A., Winchester, MA, United States  
Hess, Robert A., Cambridge, MA, United States  
Tao, Feng, Boston, MA, United States  
PATENT ASSIGNEE(S): BBI Bioseq, Inc., West Bridgewater, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6274726	B1	20010814
APPLICATION INFO.:	US 1998-16062		19980130 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1997-962280, filed on 31 Oct 1997, now patented, Pat. No. US 6111096		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Wilson, James O.		

LEGAL REPRESENTATIVE: Fish & Richardson P.C.  
NUMBER OF CLAIMS: 45  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 17 Drawing Figure(s); 8 Drawing Page(s)  
LINE COUNT: 2026

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is based on the discovery that hyperbaric, hydrostatic **pressure** reversibly alters the partitioning of biomolecules between certain adsorbed and solvated phases relative to partitioning at ambient **pressure**. The new methods and devices disclosed herein make use of this discovery for highly selective and efficient, low salt isolation and purification of nucleic acids from a broad range of sample types, including forensic samples, blood and other body fluids, and cultured **cells**.

In one embodiment, the invention features a **pressure** -modulation apparatus. The apparatus includes an electrode array system having at least two (i.e., two, three, four, or more) electrodes; and a conduit interconnecting the electrodes. The conduit contains an electrically conductive fluid in contact with a phase positioned in a **pressure chamber**. The phase can be, for example, a binding medium or stationary phase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 3 OF 3 USPATFULL

ACCESSION NUMBER: 2000:124763 USPATFULL  
TITLE: **Pressure**-enhanced extraction and purification  
INVENTOR(S): Laugharn, Jr., James A., Winchester, MA, United States  
Hess, Robert A., Cambridge, MA, United States  
Tao, Feng, Boston, MA, United States  
PATENT ASSIGNEE(S): BBI BioSeq, Inc., Woburn, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6120985		20000919
APPLICATION INFO.:	US 1998-83651		19980522 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-16062, filed on 30 Jan 1998 which is a continuation-in-part of Ser. No. US 1997-962280, filed on 31 Oct 1997		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wilson, James O.		
LEGAL REPRESENTATIVE:	Fish & Richardson P.C.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	2180		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods for **cell lysis** and purification of biological materials, involving subjecting a sample maintained at a subzero temperature to high **pressure**, are disclosed. Apparatus for practicing the methods are also disclosed. The **cell** or **cells** that are **lysed** may be in suspension or part of a tissue. They are **lysed** by a method that includes: (i) providing a frozen **cell** or **cells** under atmospheric **pressure**; (ii) while maintaining the **cell** or **cells** at a subzero temperature, exposing the **cell** or **cells** to an elevated **pressure** in a **pressure chamber**, the elevated **pressure** being sufficient to thaw the frozen **cell** or **cells** at the subzero temperature; (iii) depressurizing the **pressure chamber** to freeze the **cell** or **cells** at the subzero

temperature; and (iv) repeating the exposing and depressurizing steps until the **cell** or **cells** are **lysed**. This method can **lyse** a **cell** or **cells** with or without **cell** walls; such **cells** include, but are not limited to, bacteria, viruses, fungal **cells** (e.g, yeast **cells**), plant **cells** (e.g, corn leaf tissue), animal **cells**, insect **cells**, and protozoan **cells**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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